

The Military Balance 2005•2006

Editor's Foreword

The challenges posed by the asymmetric character of contemporary conflict continue to dominate military thinking and defence planning. In particular, Iraq, Afghanistan and Chechnya demonstrate the limitations of modern conventional forces in complex environments that demand more of them than traditional warfighting (see essay p. 411). For the US and coalition forces, this has been demonstrated by the difficulties faced in Iraq and Afghanistan, where swift and successful warfighting phases have given way to more uncertain post-conflict environments, with practical and political reconstruction hindered by insurgent activities. As a result, in the run-up to the publication of the next Quadrennial Defense Review, the US is revisiting some of the conclusions of the 2001 review – not necessarily revising them, rather taking into account current realities. For instance, the 2005 National Defense Strategy says US planners 'have learned that an unrivalled capacity to respond to traditional challenges is no longer sufficient' and the concept of 'three dimensional warfare' has come under further examination. Furthermore, within this complex environment, the financial cost of conflict is placing the US economy – already carrying a deficit of some 4.25% of GDP – under growing pressure. One outcome has been a significant cut in the 2006–2011 defence programme.

Given the substantial cost of ongoing asymmetric operations, in terms of forces committed as well financial draws, harnessing international support is of growing importance. In Afghanistan, with NATO due to take an increasing share of the burden from US forces, the performance and contribution of member states will be placed under sharp scrutiny. In this operation, NATO's first with a combat dimension outside its traditional area of activity, the alliance cannot afford to fail. (see p. 224) In general, though, support of the volume and kind required is proving hard to find. Meanwhile, in Iraq, where an international coalition has been active since the invasion, developing the expertise of indigenous security forces to a level where they can take over security tasks from coalition forces is a priority, not least as it will enable coalition forces to begin the process of withdrawal. (see p. 173)

However, despite the limitations on the use of conventional military forces that are highlighted by the aforementioned ongoing operations, the rapid and

large-scale response to aid South and Southeast Asian and East African countries afflicted by the tsunami disaster of 26 December 2004 demonstrated that such large-scale forces can still be of unrivalled utility. The substantial standing forces deployed across affected areas by a diverse array of nations, but particularly the Carrier Strike and Expeditionary Strike Groups despatched by the US, proved of great efficacy in disaster and humanitarian relief efforts (see pp. 14, 229, 264). The disaster relief efforts also showed how ad hoc military groupings can quickly coalesce and function together – and with civilian humanitarian organisations – in a common operating environment despite difficulties in language, operating procedures and communications.

Despite the continuing impact of asymmetric conflict, including in the north Caucasus republics of the Russian Federation (see pp. 153–6), and the attention devoted to this, development continues vis-à-vis conventional approaches to defence. China's military is rapidly modernising. This is of concern to the US and some countries in the Asia-Pacific region as the modernisation of the People's Liberation Army is no longer directed solely against Taiwan, but also has a force projection component. Moreover, there are increasing signs of a developing military relationship between China and Russia (see pp. 153, 260).

In Sub-Saharan Africa, the African Union (AU) continues to develop its capabilities in peace support operations with its deployment to Darfur, supported by NATO and the European Union (see pp. 46, 360). However, the continent continues to be heavily afflicted by the hardship resulting from disease and famine – which can themselves create and complicate local and regional security situations – notwithstanding the instability arising from political issues. However, at its July 2005 summit at Gleneagles, the G8 pledged that aid to Africa would be increased by \$25 billion a year by 2010, while it restated its 'Sea Island commitment to train and equip, some 75,000 troops by 2010 to take part in peace support operations worldwide, with a sustained focus on Africa.' The G8 also said it would support the AU mission in Sudan.

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Preface

The Military Balance is updated each year to provide an accurate assessment of the military forces and defence expenditures of 169 countries. The data in the current edition are according to IISS assessments as at August 2005. Inclusion of a country or state in *The Military Balance* does not imply legal recognition or indicate support for any government.

GENERAL ARRANGEMENT

Part I of *The Military Balance* comprises the regional trends, military capabilities and defence economics data for countries grouped by region. Thus North America includes the United States and Canada. Regional groupings are preceded by a short introduction describing the military issues facing the region. There are tables depicting major training exercises, nuclear delivery and warhead holdings and military satellites. Conventional Forces in Europe Treaty data are also shown. There is an essay on Complex Irregular Warfare.

Part II contains information on non-state armed groups and their activity. The loose wall-map is updated for 2005 to show data on recent and current armed conflicts, including fatalities and costs.

Part III comprises reference material.

USING THE MILITARY BALANCE

The country entries in *The Military Balance* are a quantitative assessment of the personnel strengths and equipment holdings of the world's armed forces. The strengths of forces and the numbers of weapons held are based on the most accurate data available or, failing that, on the best estimate that can be made.

The data presented each year reflect judgements based on information available to the IISS at the time the book is compiled. Where information differs from previous editions, this is mainly because of changes in national forces, but it is sometimes because the IISS has reassessed the evidence supporting past entries. An attempt is made to distinguish between these reasons for change in the text that introduces each regional section, but care

must be taken in constructing time-series comparisons from information given in successive editions.

In order to interpret the data in the country entries correctly, it is essential to read the explanatory notes beginning on page 7.

The large quantity of data in *The Military Balance* has been compressed into a portable volume by extensive employment of abbreviations. An essential tool is therefore the alphabetical index of abbreviations, which appears at the back of the book.

ATTRIBUTION AND ACKNOWLEDGEMENTS

The International Institute for Strategic Studies owes no allegiance to any government, group of governments, or any political or other organisation. Its assessments are its own, based on the material available to it from a wide variety of sources. The cooperation of governments of all listed countries has been sought and, in many cases, received. However, some data in *The Military Balance* are estimates.

Care is taken to ensure that these are as accurate and free from bias as possible. The Institute owes a considerable debt to a number of its own members, consultants and all those who helped compile and check material. The Director and staff of the Institute assume full responsibility for the data and judgements in this book. Comments and suggestions on the data presented are welcomed. Suggestions on the style and method of presentation are also much appreciated.

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Explanatory Notes

ABBREVIATIONS AND DEFINITIONS

Abbreviations are used throughout to save space and to avoid repetition. The abbreviations may have both singular or plural meanings; for example, 'elm' = 'element' or 'elements'. The qualification 'some' means up to, while 'about' means the total could be higher than given. In financial data, 's' refers to US dollars unless otherwise stated; billion (bn) signifies 1,000 million (m). Footnotes particular to a country entry or table are indicated by letters, while those that apply throughout the book are marked by symbols (* for training aircraft counted by the IISS as combat-capable, and † where serviceability of equipment is in doubt). A full list of abbreviations appears on the detachable laminated card at the back of the book.

COUNTRY ENTRIES

Information on each country is shown in a standard format, although the differing availability of information results in some variations. Country entries include economic, demographic and military data. Military data include manpower, length of conscript service, outline organisation, number of formations and units and an inventory of the major equipment of each service. This is followed, where applicable, by a description of the deployment of each service. Details of national forces stationed abroad and of foreign-stationed forces are also given.

ARMS ORDERS AND DELIVERIES

Tables in the regional texts show arms orders and deliveries listed by country buyer for the past and current years, together with country supplier and delivery dates, if known. Every effort has been made to ensure accuracy, but some transactions may not be fulfilled or may differ from those reported.

GENERAL MILITARY DATA

Manpower

The 'Active' total comprises all servicemen and women on full-time duty (including conscripts and long-term assignments from the Reserves). Under the heading 'Terms of Service', only the length of conscript service

is shown; where service is voluntary there is no entry. 'Reserve' describes formations and units not fully manned or operational in peacetime, but which can be mobilised by recalling reservists in an emergency. Unless otherwise indicated, the 'Reserves' entry includes all reservists committed to rejoining the armed forces in an emergency, except when national reserve service obligations following conscription last almost a lifetime. The Military Balance bases its estimates of effective reservist strengths on the numbers available within five years of completing full-time service, unless there is good evidence that obligations are enforced for longer. Some countries have more than one category of 'Reserves', often kept at varying degrees of readiness. Where possible, these differences are denoted using the national descriptive title, but always under the heading of 'Reserves' to distinguish them from full-time active forces.

Other forces

Many countries maintain paramilitary forces whose training, organisation, equipment and control suggest they may be used to support or replace regular military forces. These are listed, and their roles described, after the military forces of each country. Their manpower is not normally included in the Armed Forces totals at the start of each entry. Home Guard units are counted as paramilitary. Where paramilitary groups are not on full-time active duty, '(R)' is added after the title to indicate that they have reserve status. A list of non-state armed opposition groups which pose a significant threat to a state's security is provided in Part II.

Equipment

Quantities are shown by function and type, and represent what are believed to be total holdings, including active and reserve operational and training units and 'in store' stocks. Inventory totals for missile systems – such as surface-to-surface missiles (SSM), surface-to-air missiles (SAM) and anti-tank guided weapons (ATGW) – relate to launchers and not to missiles. Stocks of equipment held in reserve and not assigned to either active or reserve units are listed as 'in store'. However, aircraft in excess of unit establishment holdings, held to allow for repair and modification or immediate replacement, are not shown 'in store'.

Table 1 Units and formation strength

Company	100–200
Battalion	500–800
Brigade (regiment)	3,000–5,000
Division	15,000–20,000
Corps (Army)	60,000–80,000

This accounts for apparent disparities between unit strengths and aircraft inventory strengths.

Operational deployments

Where deployments are overseas, *The Military Balance* lists permanent bases and does not normally list short-term operational deployments, particularly where military operations are in progress. An exception is made in the case of peacekeeping operations. Recent developments are also described in the text for each regional section.

GROUND FORCES

The national designation is normally used for army formations. The term 'regiment' can be misleading. It can mean essentially a brigade of all arms; a grouping of battalions of a single arm; or a battalion group. The sense intended is indicated in each case. Where there is no standard organisation, the intermediate levels of command are shown as headquarters (HQs), followed

by the total numbers of units that could be allocated to them. Where a unit's title overstates its real capability, the title is given in inverted commas, with an estimate given in parentheses of the comparable unit size typical of countries with substantial armed forces. For guidelines for unit and formation strengths, see Table 1.

Military formations

The manpower strength, equipment holdings and organisation of formations such as brigades and divisions differ widely from country to country. Where possible, the normal composition of formations is given in parentheses. It should be noted that where both divisions and brigades are listed, only independent or separate brigades are counted and not those included in divisions.

NAVAL FORCES

Categorisation is based on operational role, weapon fit and displacement. Ship classes are identified by the name of the first ship of that class, except where a class is recognised by another name (such as *Udalay*, *Petya*). Where the class is based on a foreign design or has been acquired from another country, the original class name is added in parentheses. Each class is given an acronym. All such designators are included in the list of abbreviations. The term 'ship' refers to vessels with over 1,000 tonnes full-load displacement that are more than 60

Principal Ground Equipment Definitions

The Military Balance uses the following definitions of equipment:

Main Battle Tank (MBT) An armoured, tracked combat vehicle, weighing at least 16.5 metric tonnes unladen, that may be armed with a turret-mounted gun of at least 75mm calibre. Any new-wheeled combat vehicles that meet the latter two criteria will be considered MBTs.

Armoured Combat Vehicle (ACV) A self-propelled vehicle with armoured protection and cross-country capability. ACVs include:

Armoured Infantry Fighting Vehicle (AIFV) An armoured combat vehicle designed and equipped to transport an infantry squad, armed with an integral/organic cannon of at least 20mm calibre. Variants of AIFVs are also included and indicated as such.

Armoured Personnel Carrier (APC) A lightly armoured combat vehicle, designed and equipped to transport an infantry squad and armed with integral/organic weapons of less than 20mm calibre. Variants of APCs converted for other uses (such as weapons platforms, command posts and communications vehicles) are included and indicated as such.

Artillery A weapon with a calibre of 100mm and above, capable of engaging ground targets by delivering primarily indirect fire. The definition covers guns, howitzers, gun/howitzers, multiple-rocket launchers and mortars.

Principal Naval Equipment Definitions

To aid comparison between fleets, the following definitions, which do not necessarily conform to national definitions, are used:

Submarines. All vessels equipped for military operations and designed to operate primarily below the surface. Those vessels with submarine-launched ballistic missiles are listed separately under 'Strategic Nuclear Forces'.

Principal Surface Combatant. This term includes all surface ships with both 1,000 tonnes full load displacement and a weapons system for other than self-protection. All such ships are assumed to have an anti-surface ship capability. They comprise: aircraft carriers (defined below); cruisers (over 8,000 tonnes) and destroyers (less than 8,000 tonnes), both of which normally have an anti-air role and may also have an anti-submarine capability; and frigates (less than 8,000 tonnes) which normally have an anti-submarine role. Only ships with a flight deck that extends beyond two-thirds of the vessel's length are classified as aircraft carriers. Ships with shorter flight decks are shown as helicopter carriers.

Patrol and Coastal Combatants. These are ships and craft whose primary role is protecting a state's sea approaches and coastline. Included are corvettes (500–1,500 tonnes with an attack capability), missile craft (with permanently fitted missile-launcher ramps and control equipment) and torpedo craft (with anti-surface-ship torpedoes). Ships and craft that fall outside these definitions are classified as 'patrol' and divided into 'offshore' (over 500 tonnes), 'coastal' (75–500 tonnes), 'inshore' (less than 75 tonnes) and 'riverine'. The prefix 'fast' indicates that the ship's speed is greater than 30 knots.

Mine Warfare. This term covers surface vessels configured primarily for mine laying or mine counter-measures (such as mine-hunters, minesweepers or dual-capable vessels). They are further classified into 'offshore', 'coastal', 'inshore' and 'riverine' with the same tonnage definitions as for 'patrol' vessels shown above.

Amphibious. This term includes ships specifically procured and employed to disembark troops and their equipment onto unprepared beachheads by means such as landing craft, helicopters or hovercraft, or directly supporting amphibious operations. The term 'Landing Ship' (as opposed to 'Landing Craft') refers to vessels capable of an ocean passage that can deliver their troops and equipment in a fit state to fight. Vessels with an amphibious capability but not assigned to amphibious duties are not included. Amphibious craft are listed at the end of each entry.

Support and Miscellaneous. This term covers auxiliary military ships. It covers four broad categories: 'underway support' (e.g., tankers and stores ships), 'maintenance and logistic' (e.g., sealift ships), 'special purposes' (e.g., intelligence collection ships) and 'survey and research' ships.

Merchant Fleet. This category is included in a state's inventory when it can make a significant contribution to the state's military sealift capability.

Weapons Systems. Weapons are listed in the following order: land-attack missiles, anti-surface ship missiles, surface-to-air missiles, guns, torpedo tubes, other anti-submarine weapons, and helicopters. Missiles with a range of less than 5km, and guns with a calibre of less than 76mm, are not included. Exceptions may be made in the case of some minor combatants with a primary gun armament of a lesser calibre.

Aircraft. All armed aircraft, including anti-submarine warfare and maritime-reconnaissance aircraft, are included as combat aircraft in naval inventories.

Organisations. Naval groupings such as fleets and squadrons frequently change and are often temporary; organisations are shown only where it is meaningful.

Principal Air Force Equipment Definitions

Different countries often use the same basic aircraft in different roles; the key to determining these roles lies mainly in aircrew training. In The Military Balance the following definitions are used as a guide:

Fixed Wing Aircraft

Fighter. This term is used to describe aircraft with the weapons, avionics and performance capacity for aerial combat. Multi-role aircraft are shown as fighter ground attack (FGA), fighter, reconnaissance and so on, according to the role in which they are deployed.

Bombers. These aircraft are categorised according to their designed range and payload as follows:

Long-range. Capable of delivering a weapons payload of more than 10,000kg over an unrefuelled radius of action of over 5,000km;

Medium-range. Capable of delivering weapons of more than 10,000kg over an unrefuelled radius of action of between 1,000km and 5,000km;

Short-range. Capable of delivering a weapons payload of more than 10,000kg over an unrefuelled radius of action of less than 1,000km.

A few bombers with the radius of action described above, but designed to deliver a payload of less than 10,000kg, and which do not fall into the category of FGA, are described as light bombers.

Helicopters

Armed Helicopters. This term is used to cover helicopters equipped to deliver ordnance, including for anti-submarine warfare.

Attack. Helicopters with an integrated fire control and aiming system, designed to deliver anti-armour, air-to-ground or air-to-air weapons;

Combat. Support Helicopters equipped with area suppression or self-defence weapons, but without an integrated fire control and aiming system;

Assault. Armed helicopters designed to deliver troops to the battlefield.

Transport Helicopters. The term describes unarmed helicopters designed to transport personnel or cargo in support of military operations.

metres (m) in overall length; vessels of lesser displacement, but of 16m or more overall length, are termed 'craft'. Vessels of less than 16m overall length are not included. The term 'commissioning' of a ship is used to mean the ship has completed fitting out and initial sea trials, and has a naval crew; operational training may not have been completed, but otherwise the ship is available for service. 'Decommissioning' means that a ship has been removed from operational duty and the bulk of its naval crew transferred. Removing equipment and stores and dismantling weapons, however, may not have started. Where known, ships in long-term refit are shown as such.

AIR FORCES

The term 'combat aircraft' refers to aircraft normally equipped to deliver air-to-air or air-to-surface ordnance. The 'combat' totals include aircraft in operational conversion units whose main role is weapons training, and training aircraft of the same type as those in front-line squadrons that are assumed to be available for operations at short notice. Training aircraft considered to be combat capable are marked with an asterisk (*). Armed maritime aircraft are included in combat aircraft totals. Operational groupings of air forces are shown where known. Squadron aircraft strengths vary with aircraft types and from country to country.

DEFENCE ECONOMICS

Country entries in Part I include defence expenditures, selected economic performance indicators and demographic aggregates. There are also international comparisons of defence expenditure and military manpower, giving expenditure figures for the past three years in per capita terms and as a % of GDP. The aim is to provide an accurate measure of military expenditure and of the allocation of economic resources to defence. All country entries are subject to revision each year, as new information, particularly that regarding defence expenditure, becomes available. The information is necessarily selective.

Individual country entries show economic performance over the past two years, and current demographic data. Where these data are unavailable, information from the last available year is provided. Where possible, official defence budgets for the current year and previous two years are shown, as well as an estimate of actual defence expenditures for those countries where true defence expenditure is thought to be considerably higher than official budget figures suggest. Estimates of actual defence expenditure, however, are only made for those countries where there are sufficient data to justify such a measurement. Therefore, there will be several countries listed in *The Military Balance* for which only an official defence budget figure is provided but where, in reality, true defence-related expenditure is almost certainly higher.

All financial data in the country entries are shown both in national currency and US dollars at current year, not constant, prices. US dollar conversions are generally, but not invariably, calculated from the exchange rates listed in the entry. In a few cases, notably Russia, a US-dollar purchasing power parity (PPP) rate is used in preference to official or market-exchange rates.

Definitions of terms

Despite efforts by NATO and the UN to develop a standardised definition of military expenditure, many countries prefer to use their own definitions (which are often not made public). In order to present a comprehensive picture, *The Military Balance* lists three different measures of military-related spending data.

- For most countries, an official defence budget figure is provided.
- For those countries where other military-related outlays, over and above the defence budget, are known, or can be reasonably estimated, an additional measurement referred to as defence expenditure is also provided. Defence expenditure figures will naturally be

higher than official budget figures, depending on the range of additional factors included.

- For NATO countries, an official defence budget figure as well as a measure of defence expenditure (calculated using NATO's definition) is quoted.

NATO's definition of military expenditure, the most comprehensive, is defined as the cash outlays of central or federal government to meet the costs of national armed forces. The term 'armed forces' includes strategic, land, naval, air, command, administration and support forces. It also includes paramilitary forces such as *gendarmerie*, the customs service and the border guard if these forces are trained in military tactics, equipped as a military force and operate under military authority in the event of war. Defence expenditures are reported in four categories: Operating Costs, Procurement and Construction, Research and Development (R&D) and Other Expenditure. Operating Costs include: salaries and pensions for military and civilian personnel; the cost of maintaining and training units, service organisations, headquarters and support elements; and the cost of servicing and repairing military equipment and infrastructure. Procurement and Construction expenditure covers national equipment and infrastructure spending, as well as common infrastructure programmes. It also includes financial contributions to multinational military organisations, host-nation support in cash and in kind, and payments made to other countries under bilateral agreements. R&D is defence expenditure up to the point at which new equipment can be put in service, regardless of whether new equipment is actually procured. Foreign Military Aid (FMA) contributions of more than US\$1 million are also noted.

For many non-NATO countries the issue of transparency in reporting military budgets is a fundamental one. Not every UN member state reports defence budget (even fewer real defence expenditures) data to their electorates, the UN, the IMF or other multinational organisations. In the case of governments with a proven record of transparency, official figures generally conform to the standardised definition of defence budgeting, as adopted by the UN, and consistency problems are not usually a major issue. The IISS cites official defence budgets as reported by either national governments, the UN, the OSCE or the IMF.

For those countries where the official defence budget figure is considered to be an incomplete measure of total military related spending, and appropriate additional data are available, the IISS will use data from a variety of sources to arrive at a more accurate estimate of true defence expenditure. The most frequent instances of

budgetary manipulation or falsification typically involve equipment procurement, R&D, defence industrial investment, covert weapons programmes, pensions for retired military and civilian personnel, paramilitary forces and non-budgetary sources of revenue for the military arising from ownership of industrial, property and land assets.

The principal sources for national economic statistics cited in the country entries are the IMF, the Organisation for Economic Cooperation and Development (OECD), the World Bank and three regional banks (the Inter-American, Asian and African Development Banks). For some countries basic economic data are difficult to obtain. This is the case in a few former command economies in transition and countries currently or recently involved in armed conflict. The Gross Domestic Product (GDP) figures are nominal (current) values at market prices. GDP growth is real not nominal growth, and inflation is the year-on-year change in consumer prices. Two different measures of debt are used to distinguish between OECD and non-OECD countries: for OECD countries, debt is gross public debt (or, more exactly, general government gross financial liabilities) expressed as a proportion of GDP. For all other countries, debt is gross foreign debt denominated in current US dollars. Dollar exchange rates relate to the last two years plus the current year. Values for the past two years are annual averages, while current values are the latest monthly value.

Calculating exchange rates

Typically, but not invariably, the exchange rates shown in the country entries are also used to calculate GDP

and defence budget and expenditure dollar conversions. Where they are not used, it is because the use of exchange rate dollar conversions can misrepresent both GDP and defence expenditure. For former communist countries, PPP rather than market exchange rates are sometimes used for dollar conversions of both GDP and defence expenditures. Where PPP is used, it is annotated accordingly.

The arguments for using PPP are strongest for Russia and China. Both the UN and IMF have issued caveats concerning the reliability of official economic statistics on transitional economies, particularly those of Russia, some Eastern European and Central Asian countries. Non-reporting, lags in the publication of current statistics and frequent revisions of recent data (not always accompanied by timely revision of previously published figures in the same series) pose transparency and consistency problems. Another problem arises with certain transitional economies whose productive capabilities are similar to those of developed economies, but where cost and price structures are often much lower than world levels.

PPP dollar values are used in preference to market exchange rates in cases where using such exchange rates may result in excessively low dollar-conversion values for GDP and defence expenditure data.

Demographic data

Population aggregates are based on the most recent official census data or, in their absence, demographic statistics taken from US Census Bureau. Data on ethnic and religious minorities are also provided under country entries where a related security issue exists.